shape of the end faces. Likewise, in the case where the honeycomb core is made of a carbon fiber reinforced plastic, the formation of the air vents is limited by the shape of the end faces of the panel.

The paragraph beginning at page 4, line 27 through page 5, line 24:

With the above honeycomb sandwich panel, the honeycomb sandwich panel, the honeycomb core is not breathable but the front or rear surface layer or both are porous and breathable. Therefore, when the panel is used in a vacuum, the air in the cells goes out through the front and rear surface layers. Thus, since no difference in pressure is made between the inside and the outside of the sandwich panel, the front and rear surface layers are prevented from being damaged or removed from the honeycomb core. As a result, the sandwich panel with high durability can be obtained. Moreover, even when the ambient pressure is returned to a normal pressure or increased above atmospheric pressure, since air flows into the honeycomb core, no excessive force is applied to the honeycomb sandwich panel. The honeycomb core may be made of Nomex, aluminum or a fiber reinforced plastic. Since the front and rear surface layers have air passages connected to the outside, the shape of the panel is not limited by the shape of the end faces (edge) of the panel but has a degree of freedom. For example, it is possible to form a panel or a structure member with a closed cross section to improve the torsional rigidity. Thus, the panel or a structure member has (much) more freedom in designing to achieve required strength. Furthermore, sine no special process is additionally required, the manufacturing cost can be saved.

The paragraph beginning on page 7, line 9

FIG. 1 is a longitudinal cross-sectional view of a honeycomb sandwich panel, and FIG. 2 is a plan view of the honeycomb sandwich panel in which a front surface layer is partially cut away. As shown in FIGS. 1 and 2, a honeycomb sandwich panel 11, which can be used as an interior material, partition material or structural member of an artificial satellite or a space station, comprises a honeycomb core 12. The honeycomb core 12 includes a number of cells 12a arranged like a honeycomb, which extend in the thickness direction through the core. The honeycomb sandwich panel 11 also comprises sheets of a front surface layer 13 and a rear surface layer 14 sandwiching the honeycomb core 12 on both sides thereof.

The paragraph beginning on page 8, line 16:

A test piece of the honeycomb sandwich panel comprises a honeycomb core of a hexagonal HRH10-3/16-3.0 (t+12.7 mm) and front and rear surface layers made of a phenol CFRP prepreg, SRC -099E (produced by Sakura Rubber Co., Ltd.). The SRC-099E is so made that it is to be hardened and molded by an autoclave method, thereby forming the front and rear surface layers.

The paragraph beginning on page 14, line 15:

Based on the results of the experiments described above, it is confirmed that the honeycomb sandwich panel of the present invention can be used even in a vacuum owing to the air permeability of the fiber reinforced plastic using a phenolic resin as the matrix. Moreover, a later process for forming air vents on the side walls of the cells of the honeycomb core is not required, as in the conventional art. Therefore the number of steps is reduced, resulting in a reduction in cost. It is possible to form a panel or a